

ABSTRACT

A system for *dispatching and controlling generation* in an electric power system *consisting* of a plurality of power units comprises a computer *with dispatching optimization module* connected by communications means to the power units. According to the invention, in the electric power system *consisting* of a plurality of subsystems each comprising a plurality of power plants provided with power units, said computer is a higher-layer computer and the specified load dispatching optimization module is designed to determine parameters for an optimal *interchange of power and energy* between subsystems. The inventive controlling system further comprises a plurality of computers according to a number of subsystems, said computers being lower-layer computers each comprising a specified subsystem *dispatching* optimization module designed to determine parameters for an optimal *allocation of generation* between power plants within a subsystem, and a unit for computation of functional characteristics for each subsystem, wherein each lower-layer computer is connected by lower-layer communications means to respective power plants of respective subsystems. The inventive controlling system also comprises higher-layer communications means, wherein the lower-layer computers are connected to a higher-layer computer via the higher-layer communications means.